

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

Listing of Claims

1. (Currently Amended) A digital video reproduction method for ~~at least~~ reproducing at least one image based on video contents and metadata, wherein
said video contents include an event scene, wherein said event scene is peculiar to a motion picture;
said metadata comprises at least event information data having a designation of a starting position and contents of said event scene; ~~and~~
said digital video reproduction method comprises the steps of using said event information data and reproducing an image from said event scene selected by a spectator,
wherein when recognition of an icon by a spectator is difficult when all icons corresponding to said event scene included in said video contents are displayed on a time bar,
wherein said time bar corresponds to an entire reproduction time of said video contents, said digital video reproduction method further comprises the steps of:
displaying a portion of said time bar as an expanded time bar, wherein said
portion of said time bar includes a selected position on said time bar; and
displaying an icon on said expanded time bar, wherein said icon corresponds to an event scene included in said portion of said time bar.

2. (Original) The digital video reproduction method according to claim 1, wherein

said metadata includes information on reproduction time related to video contents, wherein said digital video reproduction method comprises the steps of:

displaying a timeline on a display apparatus screen as a time bar during reproduction of said image or upon an operation by a spectator at a time of starting reproduction, wherein said time bar corresponds to a reproduction time of video contents, and said video contents are based on said reproduction time;

displaying an icon corresponding to said event scene on a starting position of said event scene on said time bar, wherein said displaying is based on said event information data; and

reproduction of image from a starting position of said event scene corresponding to said icon, wherein said icon is an icon selected by a spectator.

3. (Canceled)

4. (Currently Amended) ~~The digital video reproduction method according to claim 1, wherein~~ A digital video reproduction method for reproducing at least one image based on video contents and metadata, wherein

said video contents include an event scene, wherein said event scene is peculiar to a motion picture;

said metadata comprises at least event information data having a designation of a starting position and contents of said event scene;

said digital video reproduction method comprises the steps of using said event information data and reproducing an image from said event scene selected by a spectator,

wherein when recognition of said an icon by a spectator is difficult when all icons corresponding to said event scene included in said video contents are displayed on ~~said~~ a time bar, wherein said time bar corresponds to an entire reproduction time of said video contents, said digital video reproduction method further comprises the steps of:

determination of a selected reproduction time partition, wherein said reproduction time partition is selected from a timeline corresponding to an entire reproduction time;

displaying a scrolling time bar, wherein said scrolling time bar corresponds to said selected reproduction time partition;

displaying said icon on said scrolling time bar, wherein said icon corresponds to an event scene included in said selected reproduction time partition;

scrolling said selected reproduction time partition, wherein a direction of said scrolling is designated by a spectator;

displaying said scrolling time bar corresponding to a reproduction time partition after said scrolling; and

displaying an icon corresponding to an event scene included in said reproduction time partition after scrolling.

5. (Currently Amended) ~~The digital video reproduction method according to claim 1, wherein~~ A digital video reproduction method for reproducing at least one image based on video contents and metadata, wherein

said video contents include an event scene, wherein said event scene is peculiar to a motion picture;

said metadata comprises at least event information data having a designation of a starting position and contents of said event scene;

said digital video reproduction method comprises the steps of using said event information data and reproducing an image from said event scene selected by a spectator,

wherein when recognition of ~~said~~ an icon by a spectator is difficult when all icons corresponding to said event scene included in said video contents are displayed on ~~said~~ a time bar, wherein said time bar corresponds to an entire reproduction time of said video contents, said digital video reproduction method further comprises the steps of:

splitting and displaying said time bar in a plurality of non linear partitions, wherein a time density of said displaying is set minimum for a partition selected by a spectator and maximum for a partition located far from said selected partition; and

displaying an icon corresponding to an event scene included in each of said partitions, wherein said icon is displayed only when said icon does not overlap with another icon when displayed.

6. (Currently Amended) A digital video reproducing apparatus, comprising:

a storage means for storing video contents and metadata, wherein

said video contents include an event scene, wherein said event scene is peculiar to a motion picture; and

said metadata comprises at least event information data having a designation of a starting position and contents of said event scene; ~~and~~

a means for controlling image reproduction based on said video contents and said metadata, wherein said means for controlling image at least reproduces image; wherein

said digital video reproducing apparatus connected to a display apparatus includes said means for controlling image reproduction using said event information data and reproducing image from an event scene selected by a spectator; and

said metadata includes reproduction time information related to video contents;

said digital video reproducing apparatus comprises a means for displaying a secondary image, wherein during reproduction of said image or upon operation by a spectator, said means for displaying the secondary image displays:

a timeline on a display apparatus screen as a time bar based on said reproduction time information, wherein said timeline corresponds to a reproduction time of video contents; and

an icon on a starting position of said event scene on the time bar based on said event information data, wherein said icon corresponds to said event scene; and

said means for controlling image reproduction reproduces image from a starting position of said event scene, said event scene corresponding to said icon selected by a spectator,

wherein when recognition of said icon by a spectator is difficult when all icons corresponding to said event scene included in said video contents are displayed on said time bar,

wherein said time bar corresponds to an entire reproduction time of said video contents, said means for displaying the secondary image displays:

a portion of said time bar as an expanded time bar, wherein said portion of said time bar includes a selected position on said time bar; and

an icon on said expanded time bar, wherein said icon corresponds to an event scene included in said portion of said time bar.

7. (Original) The digital video reproducing apparatus according to claim 6, wherein

each of said event information data includes an attribute related to said event scene;

said digital video reproducing apparatus has a search means for searching an event information data having said attribute, wherein said attribute is selected from all event information data stored in said storage; and

said means for controlling image reproduction reproduces image from an event scene corresponding to an event information data, wherein said event information data is selected by a spectator from said event information data searched by said search means.

8. (Canceled)

9. (Currently Amended) The digital video reproducing apparatus according to ~~claim 8~~ claim 6, wherein

each of said event information data includes an attribute related to said event scene;

said digital video reproducing apparatus has a search means for searching an event information data having said attribute, wherein said attribute is selected from all event information data stored in said storage; and

said means for controlling image reproduction reproduces image from an event scene corresponding to an event information data, wherein said event information data is selected by a spectator from said event information data searched by said search means.

10. (Canceled)

11. (Currently Amended) The digital video reproducing apparatus according to ~~claim 10~~ claim 6, wherein

each of said event information data includes an attribute related to said event scene;

said digital video reproducing apparatus has a search means for searching an event information data having said attribute, wherein said attribute is selected from all event information data stored in said storage; and

said means for controlling image reproduction reproduces image from an event scene corresponding to an event information data, wherein said event information data is selected by a spectator from said event information data searched by said search means.

12. (Currently Amended) ~~The digital video reproducing apparatus according to claim 8, wherein~~ A digital video reproducing apparatus, comprising:

a storage means for storing video contents and metadata, wherein

said video contents include an event scene, wherein said event scene is peculiar to a motion picture; and

said metadata comprises at least event information data having a designation of a starting position and contents of said event scene;

a means for controlling image reproduction based on said video contents and said metadata, wherein said means for controlling image at least reproduces image; wherein

said digital video reproducing apparatus connected to a display apparatus includes said means for controlling image reproduction using said event information data and reproducing image from an event scene selected by a spectator; and

said metadata includes reproduction time information related to video contents;

said digital video reproducing apparatus comprises a means for displaying a secondary image, wherein during reproduction of said image or upon operation by a spectator, said means for displaying the secondary image displays:

a timeline on a display apparatus screen as a time bar based on said reproduction time information, wherein said timeline corresponds to a reproduction time of video contents; and

an icon on a starting position of said event scene on the time bar based on said event information data, wherein said icon corresponds to said event scene; and

said means for controlling image reproduction reproduces image from a starting position of said event scene, said event scene corresponding to said icon selected by a spectator,

wherein when recognition of said icon by a spectator is difficult when all icons corresponding to said event scene included in said video contents are displayed on said time bar, wherein said time bar corresponds to an entire reproduction time of said video contents, said means for displaying the secondary image:

determines a selected reproduction time partition, wherein said reproduction time partition is selected from a timeline corresponding to an entire reproduction time;

displays a scrolling time bar, wherein said scrolling time bar corresponds to said selected reproduction time partition;

displays said icon on said scrolling time bar, wherein said icon corresponds to an event scene included in said selected reproduction time partition;

scrolls said selected reproduction time partition, wherein a direction of scrolling is designated by a spectator;

displays said time bar, wherein said time bar corresponds to a reproduction time partition after said scrolling; and

displays an icon, wherein said icon corresponds to an event scene included in said reproduction time partition after scrolling.

13. (Original) The digital video reproducing apparatus according to claim 12, wherein

each of said event information data includes an attribute related to said event scene;

said digital video reproducing apparatus has a search means for searching an event information data having said attribute, wherein said attribute is selected from all event information data stored in said storage; and

said means for controlling image reproduction reproduces image from an event scene corresponding to an event information data, wherein said event information data is selected by a spectator from said event information data searched by said search means.

14. (Currently Amended) ~~The digital video reproducing apparatus according to claim 8, wherein~~ A digital video reproducing apparatus, comprising:

a storage means for storing video contents and metadata, wherein

said video contents include an event scene, wherein said event scene is peculiar to a motion picture; and

said metadata comprises at least event information data having a designation of a starting position and contents of said event scene;

a means for controlling image reproduction based on said video contents and said metadata, wherein said means for controlling image at least reproduces image; wherein

said digital video reproducing apparatus connected to a display apparatus includes said means for controlling image reproduction using said event information data and reproducing image from an event scene selected by a spectator; and

said metadata includes reproduction time information related to video contents;

said digital video reproducing apparatus comprises a means for displaying a secondary image, wherein during reproduction of said image or upon operation by a spectator, said means for displaying the secondary image displays:

a timeline on a display apparatus screen as a time bar based on said reproduction time information, wherein said timeline corresponds to a reproduction time of video contents; and

an icon on a starting position of said event scene on the time bar based on said event information data, wherein said icon corresponds to said event scene; and

said means for controlling image reproduction reproduces image from a starting position of said event scene, said event scene corresponding to said icon selected by a spectator,

wherein when recognition of said icon by a spectator is difficult when all icons corresponding to said event scene included in said video contents are displayed on said time bar, wherein said time bar corresponds to an entire reproduction time of said video contents, said means for displaying the secondary image:

splits and displays said time bar in a plurality of non linear partitions, wherein a time density is set minimum for a partition selected by a spectator and maximum for a partition located far from said selected partition; and

displays an icon corresponding to an event scene included in each of said partitions, wherein said icon is displayed only when said icon does not overlap with another icon when displayed.

15. (Original) The digital video reproducing apparatus according to claim 14, wherein

each of said event information data includes an attribute related to said event scene;

said digital video reproducing apparatus has a search means for searching an event information data having said attribute, wherein said attribute is selected from all event information data stored in said storage; and

said means for controlling image reproduction reproduces image from an event scene corresponding to an event information data, wherein said event information data is selected by a spectator from said event information data searched by said search means.

16. (Currently Amended) A digital video reproducing apparatus, comprising:
- a communication means for receiving video contents and metadata, wherein
 - said video contents include an event scene, wherein said event scene is peculiar to a motion picture; and
 - said metadata comprises at least event information data having a designation of a starting position and contents of said event scene; and
 - a means for controlling image reproduction for at least reproducing image based on said video contents and said metadata; wherein
 - said video reproducing apparatus connected to a display apparatus includes said means for controlling image reproduction using said event information data and reproducing image from an event scene selected by a spectator;
 - said metadata includes reproduction time information related to video contents;
 - said digital video reproducing apparatus comprises a means for displaying a secondary image, wherein during reproduction of said image or upon operation by a spectator,
 - said means for displaying the secondary image displays:
 - a timeline on a display apparatus screen as a time bar based on said reproduction time information, wherein said timeline corresponds to a reproduction time of video contents; and

an icon on a starting position of said event scene on the time bar based on said event information data, wherein said icon corresponds to said event scene; and

said means for controlling image reproduction reproduces image from a starting position of said event scene, said event scene corresponding to said icon selected by a spectator,

wherein when recognition of said icon by a spectator is difficult when all icons corresponding to said event scene included in said video contents are displayed on said time bar,

wherein said time bar corresponds to an entire reproduction time of said video contents, said means for displaying the secondary image displays:

a portion of said time bar as an expanded time bar, wherein said portion of said time bar includes a selected position on said time bar; and

an icon on said expanded time bar, wherein said icon corresponds to an event scene included in said portion of said time bar.

17. (Canceled)

18. (Canceled)

19. (Currently Amended) ~~The digital video reproducing apparatus according to claim 17, wherein~~ A digital video reproducing apparatus, comprising:

a communication means for receiving video contents and metadata, wherein

said video contents include an event scene, wherein said event scene is peculiar to a motion picture; and

said metadata comprises at least event information data having a designation of a starting position and contents of said event scene; and

means for controlling image reproduction for at least reproducing image based on said video contents and said metadata; wherein

said digital video reproducing apparatus connected to a display apparatus includes said means for controlling image reproduction using said event information data and reproducing image from an event scene selected by a spectator;

said metadata includes reproduction time information related to video contents;

said digital video reproducing apparatus comprises a means for displaying a secondary image, wherein during reproduction of said image or upon operation by a spectator, said means for displaying the secondary image displays:

a timeline on a display apparatus screen as a time bar based on said reproduction time information, wherein said timeline corresponds to a reproduction time of video contents; and

an icon on a starting position of said event scene on the time bar based on said event information data, wherein said icon corresponds to said event scene; and

said means for controlling image reproduction reproduces image from a starting position of said event scene, said event scene corresponding to said icon selected by a spectator,

wherein when recognition of said icon by a spectator is difficult when all icons corresponding to said event scene included in said video contents are displayed on said time bar, wherein said time bar corresponds to an entire reproduction time of said video contents, said means for displaying the secondary image:

determines a selected reproduction time partition, wherein said reproduction time partition is selected from a timeline corresponding to an entire reproduction time;

displays a scrolling time bar, wherein said scrolling time bar corresponds to said selected reproduction time partition;

displays said icon on said scrolling time bar, wherein said icon corresponds to an event scene included in said selected reproduction time partition;

scrolls said selected reproduction time partition, wherein a direction of scrolling is designated by a spectator;

displays said time bar, wherein said time bar corresponds to a reproduction time partition after said scrolling; and

displays an icon, wherein said icon corresponds to an event scene included in said reproduction time partition after scrolling.

20. (Currently Amended) ~~The digital video reproducing apparatus according to claim 17, wherein~~ A digital video reproducing apparatus, comprising:

a communication means for receiving video contents and metadata, wherein said video contents include an event scene, wherein said event scene is peculiar to a motion picture; and

said metadata comprises at least event information data having a designation of a starting position and contents of said event scene; and

means for controlling image reproduction for at least reproducing image based on said video contents and said metadata; wherein

said digital video reproducing apparatus connected to a display apparatus includes
said means for controlling image reproduction using said event information data and reproducing
image from an event scene selected by a spectator;

said metadata includes reproduction time information related to video contents;

said digital video reproducing apparatus comprises a means for displaying a
secondary image, wherein during reproduction of said image or upon operation by a spectator,
said means for displaying the secondary image displays:

a timeline on a display apparatus screen as a time bar based on said
reproduction time information, wherein said timeline corresponds to a reproduction time of video
contents; and

an icon on a starting position of said event scene on the time bar based on
said event information data, wherein said icon corresponds to said event scene; and

said means for controlling image reproduction reproduces image from a starting
position of said event scene, said event scene corresponding to said icon selected by a spectator,

wherein when recognition of said icon by a spectator is difficult when all icons
corresponding to said event scene included in said video contents are displayed on said time bar,
wherein said time bar corresponds to an entire reproduction time of said video contents, said
means for displaying the secondary image:

splits and displays said time bar in a plurality of non linear partitions, wherein a
time density is set minimum for a partition selected by a spectator and maximum for a partition
located far from said selected partition; and

displays an icon corresponding to an event scene included in each of said partitions, wherein said icon is displayed only when said icon does not overlap with another icon when displayed.

21. (Currently Amended) A digital video recording and reproducing apparatus, ~~including~~ comprising:

~~a~~ means for controlling image reproduction for at least reproducing image based on video contents and metadata, wherein

said video contents including an event scene, wherein said event scene is peculiar to a motion picture; and

said metadata comprising at least event information data, wherein said event information data have a designation of a starting position and contents of said event scene; and

said digital video recording and reproducing apparatus connected to a display apparatus, comprises:

~~a~~ contents input means for inputting said video contents;

~~a~~ event information data input means for inputting said event information data; and

~~a~~ storage means for storing said video contents and said event information data; wherein

said event information data is inputted as added to said video contents or separated from said video contents; and

said means for controlling image reproduction uses said event information data and reproduces image from said event scene selected by a spectator;

said metadata includes reproduction time information related to video contents;

said digital video reproducing apparatus comprises means for displaying a secondary image, wherein during reproduction of said image or upon operation by a spectator, said means for displaying the secondary image displays:

a timeline on a display apparatus screen as a time bar based on said reproduction time information, wherein said timeline corresponds to a reproduction time of video contents; and

an icon on a starting position of said event scene on said time bar based on said event information data, wherein said icon corresponds to said event scene; and

said means for controlling image reproduction reproduces image from a starting position of said event scene, said event scene corresponding to said icon selected by a spectator,

wherein when recognition of said icon by a spectator is difficult when all icons corresponding to said event scene included in said video contents are displayed on said time bar, wherein said time bar corresponds to an entire reproduction time of said video contents, said means for displaying the secondary image displays:

a portion of said time bar as an expanded time bar, wherein said portion of said time bar includes a selected position on said time bar; and

an icon on said expanded time bar, wherein said icon corresponds to an event scene included in said portion of said time bar.

22. (Canceled)

23. (Canceled)

24. (Currently Amended) ~~The digital video recording and reproducing apparatus according to claim 22, wherein~~ A digital video recording and reproducing apparatus, comprising:

means for controlling image reproduction for at least reproducing image based on video contents and metadata, wherein

said video contents including an event scene, wherein said event scene is peculiar to a motion picture; and

said metadata comprising at least event information data, wherein said event information data have a designation of a starting position and contents of said event scene; and

said digital video recording and reproducing apparatus connected to a display apparatus, comprises:

contents input means for inputting said video contents;

event information data input means for inputting said event information data; and

storage means for storing said video contents and said event information data; wherein

said event information data is inputted as added to said video contents or separated from said video contents; and

said means for controlling image reproduction uses said event information data and reproduces image from said event scene selected by a spectator;

said metadata includes reproduction time information related to video contents;

said digital video reproducing apparatus comprises means for displaying a secondary image, wherein during reproduction of said image or upon operation by a spectator, said means for displaying the secondary image displays:

a timeline on a display apparatus screen as a time bar based on said reproduction time information, wherein said timeline corresponds to a reproduction time of video contents; and

an icon on a starting position of said event scene on said time bar based on said event information data, wherein said icon corresponds to said event scene; and

said means for controlling image reproduction reproduces image from a starting position of said event scene, said event scene corresponding to said icon selected by a spectator,

wherein when recognition of said icon by a spectator is difficult when all icons corresponding to said event scene included in said video contents are displayed on said time bar, wherein said time bar corresponds to an entire reproduction time of said video contents, said means for displaying the secondary image:

determines a selected reproduction time partition, wherein said reproduction time partition is selected from a timeline corresponding to an entire reproduction time;

displays a scrolling time bar, wherein said scrolling time bar corresponds to said selected reproduction time partition;

displays said icon on said scrolling time bar, wherein said icon corresponds to an event scene included in said selected reproduction time partition;

scrolls said selected reproduction time partition, wherein a direction of scrolling is designated by a spectator;

displays said time bar, wherein said time bar corresponds to a reproduction time partition after said scrolling; and

displays an icon, wherein said icon corresponds to an event scene included in said reproduction time partition after scrolling.

25. (Currently Amended) ~~The digital video recording and reproducing apparatus according to claim 22, wherein~~ A digital video recording and reproducing apparatus, comprising:

means for controlling image reproduction for at least reproducing image based on video contents and metadata, wherein

said video contents including an event scene, wherein said event scene is peculiar to a motion picture; and

said metadata comprising at least event information data, wherein said event information data have a designation of a starting position and contents of said event scene;
and

said digital video recording and reproducing apparatus connected to a display apparatus, comprises:

contents input means for inputting said video contents;

event information data input means for inputting said event information data; and

storage means for storing said video contents and said event information data; wherein

said event information data is inputted as added to said video contents or separated from said video contents; and

said means for controlling image reproduction uses said event information data and reproduces image from said event scene selected by a spectator;

said metadata includes reproduction time information related to video contents;

said digital video reproducing apparatus comprises means for displaying a secondary image, wherein during reproduction of said image or upon operation by a spectator, said means for displaying the secondary image displays:

a timeline on a display apparatus screen as a time bar based on said reproduction time information, wherein said timeline corresponds to a reproduction time of video contents; and

an icon on a starting position of said event scene on said time bar based on said event information data, wherein said icon corresponds to said event scene; and

said means for controlling image reproduction reproduces image from a starting position of said event scene, said event scene corresponding to said icon selected by a spectator,

wherein when recognition of said icon by a spectator is difficult when all icons corresponding to said event scene included in said video contents are displayed on said time bar, wherein said time bar corresponds to an entire reproduction time of said video contents, said means for displaying the secondary image:

splits and displays said time bar in a plurality of non linear partitions,
wherein a time density is set minimum for a partition selected by a spectator and maximum for a
partition located far from said selected partition; and

displays an icon corresponding to an event scene included in each of said
partitions, wherein said icon is displayed only when said icon does not overlap with another icon
when displayed.